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EXAMINER

HARMON, CHRISTOPHER R

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3721

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 39

Application Number: 09/372,009

Filing Date: August 11, 1999

Appellant(s): FUKUDA ET AL

Keiichi Nishimura
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/29/03.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: Was the rejection of claims 24-30 under 35 USC 103(a) proper?

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 24-30 stand or fall together.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5,314,563

Grimshaw

5-1994

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (US 5,125,217) in view of Grimshaw et al. (US 5,314,563).

Fukuda discloses a method of longitudinally sealing bags by moving heater unit 55 to and from a retracted position provided by air cylinder 78 operated by a "higher pressure" (figure 8). In order to seal the bag servo-motor 45 is adjusted to control the pressure applied on film material S; see column 6, lines 48-51. Fukuda recognizes "a person skilled in the art will realize that different combinations of motion-communicating... means can be substituted. Replacing communicating means of the servo-motor 45 with an additional air cylinder would have been obvious to one of ordinary skill in the art for effectively controlling the position and pressure of the heated belt 55. Fukuda discloses "different combinations of motion-communicating and torque-communicating means can be substituted." (column 8, lines 34-36).

Regarding the specified sealing pressure, Fukuda recognizes "the sealing pressure on the bag-making material can be controlled easily and accurately" (column 2, lines 6-

Art Unit: 3721

10), however does not disclose using higher and lower air pressures. Grimshaw et al. teach controlling an air cylinder by variable pressure for controlling the compressive force of an element against another, which would indicate higher and lower pressures.

“In the preferred embodiment of the invention, air cylinder 119 is provided with a variable flow control restrictor 119b, to govern the speed of its piston rod 119a in moving to the right. This helps to ensure that tail compaction roller 138 and its associated support linkage will align with the work surface 128 as air cylinder 145 powers the roller 138 to its advanced position... Extending piston rod 144 from air cylinder 145 moves tail compaction roller 138 into compaction engagement with the tail of composite tape 136. When at the tail compaction position compaction roller 138 can be disengaged from tape 136 and moved to a stored or retracted position by retracting piston 144.” (column 11, lines 38-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the teachings of Grimshaw et al. in the invention to Fukuda in order to control the compressive force accurately.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kreager (US 4,555,289) discloses specific operations of controlling/regulating air pressures to different sources. Fukuda et al. (US 5,743,066) recognize thickness as a variable to consider (column 2, lines 61-63). Fukuda (US 5,347,795) previously discloses that it is well know to use variable pressure for operating cylinders and thus compressive force for transverse sealing operations, but

Art Unit: 3721

would seem to apply to longitudinal operations as well. Bachman (US 3,872,876) teaches controlling an air cylinder by separating control air pressure and working air pressure.

(11) Response to Argument

Applicant's arguments filed 9/29/03 have been fully considered but they are not persuasive.

Air cylinders are well known actuators for controlling movement of operational elements and thus are considered motion-communicating devices (normally a tool, connector, etc. is attached to the distal end of a piston thereby affecting movement of such an element). Fukuda directly states "different combinations of motion-communicating and torque-communicating means can be substituted." (column 8, lines 34-36). Air cylinders are considered obvious substitutes of screw axes operated by servo-motors to one of ordinary skill in the art for affecting movement.


Fukuda recognizes controlling the pressure applied to the web to a specified or desired pressure (see above) only not with an air cylinder. In response to appellant's argument that Grimshaw could not be incorporated in the invention of Fukuda, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Art Unit: 3721


While features of an apparatus may be recited either structurally or functionally, claims directed towards an apparatus must be distinguished from the prior art in terms of structure rather than function. See *In re Schreiber*, 128 F.3d 1473-78, 44 USPQ2d 1429-32 (Fed.Cir. 1997) and *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed.Cir. 1990).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Chris Harmon 
October 30, 2003

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